ESTABLISHMENT OF NAVAL BASES ON THE PACIFIC COAST.

January 31, 1921.—Referred to the Committee on Naval Affairs and ordered to be printed.

Mr. Britten, from the joint committee of the Senate and House of Representatives, submitted the following

REPORT.

[Recommending the establishment of certain naval bases on the Pacific coast.]

The special joint committee, composed of five members of the Senate, appointed by the President of the Senate, and five members of the House of Representatives, appointed by the Speaker of the House of Representatives, created by the act of Congress making appropriations for the Naval Service for the fiscal year ending June 30, 1921, and for other purposes, approved June 4, 1920, reports as follows:

The duties and jurisdiction of the committee were defined by the said act as follows:

The committee shall investigate the advisability of establishing, developing, and maintaining a naval base on San Francisco Bay, or the waters tributary thereto. The committee shall prepare comparative estimates of the cost of acquiring, establishing, developing, and maintaining such sites and shall report to the Congress of the United States not later than December 31, 1920, the result of its investigation, together with such other recommendations, estimates, and information as it deems proper, including information concerning a deeper channel to Mare Island Navy Yard and a sufficient water basin at Mare Island.

That said committee shall also investigate and report in like manner as to the advisability and cost of establishing an aviation base at Sand Point, King County, Wash.; a submarine base at Los Angeles Harbor (San Pedro), Calif.; and a submarine destroyer and aviation base at Port Angeles, Wash.

The time within which the committee should report was subse-

quently extended to January 31, 1921.

The committee visited and inspected Sand Point, Ediz Hook, and the Puget Sound Navy Yard in the State of Washington; Hunters Point, Alameda, Mare Island Navy Yard, and Carquinez Straits, Richmond or San Pablo, and San Mateo on San Francisco Bay.

It also visited and inspected Los Angeles Harbor (San Pedro), Monterey, and the various naval activities and projects in and about San Diego Bay in the State of California. It had hearings at various points and was accompanied upon its tour by Admiral R. E. Coontz, Chief of Operations; Rear Admiral W. L. Capps; Rear Admiral C. W. Parks, Chief of the Bureau of Yards and Docks; Lieut Commander H. W. Hill, Aide to Admiral Coontz; and also various other naval officers at the several naval stations referred to above. The committee consulted freely with the technical experts, detailed by the department for that purpose; and also with the Navy General Board in all the matters covered by this report and by its instructions.

Sand Point is a comparatively level tract of land bordering upon Lake Washington, just outside of the limits of the city of Seattle. The area contemplated for an aviation base contains approximately 400 acres. The land will require clearing and considerable grading. Lake Washington is a well-protected body of fresh water and excellently adapted for seaplane work. Sand Point, when prepared as mentioned above, would be satisfactory as an aviation base, although the area is somewhat limited for both lighter than air and heavier than air activities. It is the opinion of this committee, and it so recommends, that a naval aviation base should be established in the Puget Sound region and that Sand Point is the most desirable site available for that purpose in this region and that it should be selected and acquired.

In general, the country surrounding Puget Sound contiguous to a body of water suitable for the use of seaplanes is steep or hilly and heavily wooded, and no other site combining the necessary features is known, although careful inspection has been made.

It is not the opinion of the committee that it should be developed immediately for the use of both lighter than air and heavier than air craft, but the committee recommends that at least one unit of heavier than air equipment be at once established, at a cost not to exceed \$1,500,000. A portion of the land is already cleared. The future development of the site and the enlargement of its aircraft activities should be subject to future decision and growth. We here attach telegrams from the chairman of the board of commissioners and from the prosecuting attorney of King County relative to the proposed offer of the county to donate this site to the Government.

SEATTLE, WASH., January 25, 1921.

Hon. MILES POINDEXTER,

United States Senate, Washington, D. C .:

County commissioners have asked us to wire you confirming Mr. Ramsey's statement as to rights of counties to acquire aviation fields and dispose of same by deed to United States. Laws 1919 confer power eminent domain on counties to acquire aviation sites. Section 901, Remington & Ballinger's Code, authorizes a disposal of such lands to United States, and section 6853, same code, provides for rights ceded Government.

MALCOLM DOUGLAS,

Prosecuting Attorney.

Seattle, Wash., January 23, 1921.

Hon. Miles Poindexter, United States Senate, Washington, D. C.:

Answering your wire 22d: County has full power to acquire land for aviation purposes under State law 1919. Power of county to convey land to Government fully upheld by Supreme Court decisions in Lake Washington Canal cases. I went over Sand Point thoroughly to-day. King County will convey to Government without costs its holdings of 230 acres and will immediately acquire and convey without cost

to Government additional acreage, making total of 400 acres. This will give field of approximately 1 mile north and south and more than three-quarters of a mile east and west, practically level and easily cleared, with more than 1 mile of lake water frontage and railroad trackage along entire west boundary. Am in ignorance of Government's plans and requirements, but if additional land is required for ultimate development of naval plans there is available 200 acres more that can be utilized. Will arrive in Washington on this matter Sunday evening, January 30, with full power to act for King County.

CLAUDE C. RAMSAY, Chairman Board King County Commissioners.

The cost of completely clearing and grading and filling the entire Sand Point site would be approximately \$800,000. It will not be necessary at once to complete the grading and filling and clearing of the entire area. The cost of the improvement and equipment to fit the site for use as a flying field will depend upon the extent of development and use.

EDIZ HOOK, PORT ANGELES, WASH.

Ediz Hook is a sand spit extending in a northeasterly and easterly direction from the shore line at the town of Port Angeles in the State of Washington. It is about 2½ miles in length, varying from a few feet to several hundred feet in width, and contains a considerable area of level ground above ordinary high-water mark. It lies on the south shore of the Strait of Juan de Fuca about 56 miles from the entrance to the Pacific on the west at Cape Flattery and about 30 miles from the entrance to Puget Sound to the eastward at Port Townsend. At Port Townsend the main ship channel of Puget Sound turns in a general southerly direction toward the city of Seattle, lying some 36 miles to the south, making approximately 66 miles by water from Seattle to Ediz Hook. This spit incloses the harbor of Port Angeles and protects it from the westerly and northerly winds and from the ocean storms. The harbor has a large area of deep water, with excellent anchorage bottom, capable of accommodating a large number of ships. The Government owns this spit, having reserved it out of the public lands for Government purposes. The portion of it lying toward the mainland has been leased to the city of Port Angeles and by the city sublet in part to various industries. A Government lighthouse is situated upon the eastern point of the spit, marking the entrance to the harbor, and adjoining that portion reserved for lighthouse purposes is a considerable area reserved by the Government for other Government purposes, which is available and desirable for use as an aviation, submarine, and destroyer base in time of emergency.

A description of a partial scheme and estimate of cost of improvements, buildings, and equipment upon this site, to the extent therein specified, from the public works officer of the Puget Sound Navy

Yard, will be found in the appendix.

The joint committee recommends that this site now owned by the Government, not subject to leases already made, nor occupied by other Government activities, be retained by the Government for future development, in case of emergency, as an advance operating station for small units, including aircraft, destroyers, and submarines, but that no further improvement be undertaken at this time.

LOS ANGELES HARBOR (SAN PEDRO), CALIF.

San Pedro has been used by submarines for a number of years. Experienced submarine officers favor this place as the best operating base in southern California. The adjacent waters are excellent for submarine exercises, being deep, free from kelp, and free from serious interference by traffic.

The proposed site would include 179 acres of tide lands and sections of the bay and 46 acres of high land. The city of Los Angeles proposes to donate the entire site. The deed for the tide lands has actually been deposited in escrow with the Secretary of the Navy.

In the entire distance of 465 nautical miles from San Francisco Bay to the southern boundary of California there is no other harbor affording the same advantages for submarine exercises not interfered with by kelp in the adjacent waters and traffic, due to naval and other craft, in the vicinity. Considering the vast expanse of southern California coast without naval defenses and the important interests centered in and about the city of Los Angeles, the opportunity afforded here by the excellent conditions existing favorable for a submarine base should be taken advantage of in the proper naval defense of the Pacific coast.

The joint committee unanimously recommends the establishment of a submarine base on this proposed site, to be developed at a total cost not to exceed \$4,000,000.

CAMP KEARNY, NEAR SAN DIEGO.

Your committee being in the neighborhood of San Diego, where there are extensive activities of the Navy, visited them all, and in that connection, having in mind appropriations heretofore made for aviation not yet allocated, or under which obligations have not yet been incurred, inquired into the question of the acquisition of a site for a lighter-than-air base, and is of the opinion that such a base should be established on this part of the coast. The comparative merits of all available proposed sites in this section were carefully considered and the only sites affording the necessary conditions for such a base which are available in this section are in the vicinity of San Diego.

North Island and March Field in this locality were considered, but the committee is advised by the Navy General Board that there is not sufficient area for a naval-lighter-than air base at these sites without serious interference with heavier-than-air activities. The only site free from vital objections, with a sufficiently regular and level surface and without the objection of hills in the vicinity, is the proposed site at Camp Kearny, about 14 miles from San Diego. It is located on a broad, flat plain, permitting steady air currents. A site of about 1,000 acres, clear of brush, and already provided with railroads, water, gas, electricity, sewerage, and good roads, is available here. The Chamber of Commerce of San Diego has made an offer to the Navy Department of 25 acres in this site in fee simple upon which to erect a hangar, and offers to guarantee that the Government shall have an option for five years on approximately 1,000 acres additional at a price of \$100 per acre, the Government,

until it is purchased, to pay an annual rental of \$8 per acre. In view of the advantages of this site, which can not be obtained elsewhere in this section, the committee recommends that it be selected for a lighter-than-air naval aviation base.

SAN FRANCISCO BAY AND THE WATERS TRIBUTARY THERETO.

It is the unanimous recommendation of the joint committee that a naval base be developed on San Francisco Bay or its tributary waters.

After full hearings and a visit by members of the joint committee to the various points in San Francisco Bay, mentioned in the beginning of this report, and full consideration of the physical conditions at each point the amount of land at present available or which can be acquired by grading and filling, the water approaches to the same, the depth of the respective channels and the currents and tides therein, the cost of acquiring and improving same, and the present equipment and works already established at Mare Island the committee unanimously agreed to eliminate from consideration, for the purposes mentioned above, the suggested sites at Martinez, Richmond or San Pablo, and San Mateo, after a full consideration of the respective merits of each of these sites as compared with others, and to confine its consideration to the three sites of Hunters Point, Alameda, and Mare Island and Carquinez Straits.

HUNTERS POINT.

The proposed site at Hunters Point was carefully examined and most thoroughly considered by the committee and full hearings were had in regard to it, and in weighing its availablility the committee freely consulted the Navy experts detailed for that purpose. However, notwithstanding many advantages which it possesses and the persuasive reasons advanced in its favor by its advocates, the committee is of the opinion that the site proposed at Alameda, on the opposite side of the bay, 3.6 miles distant, is preferable.

ALAMEDA.

The large acreage at Alameda makes possible a naval base which will permit not only of dry docks on satisfactory pile foundations, berthing space, repair shops, etc., but also of shipbuilding facilities to any extent desired, base for fuel oil, and coal, and other naval supplies, aviation fields, training and other stations. This would give ample opportunity for the development of an adequate naval base with all of its activities concentrated at one point.

If such a base is developed at Alameda, the existing dry docks located at Hunters Point will still be available for Government use in case of emergency. Under the direction of the committee numerous estimates of costs were prepared for comparative purposes,

which are to be found in Appendix B.

Nearly all of the site, containing approximately 5,340 acres, offered by the city of Alameda, is submerged, and it is estimated that the entire area can be dredged and filled to meet the needs of the

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proposed base at an approximate cost of \$6,000 per acre; however, plans for the present development contemplate the filling in of only approximately 500 acres.

The Alameda site has excellent advantages of labor supply, trans-

portation, and communication.

MARE ISLAND.

The estimate submitted to the committee show that to the south end of Mare Island, or on Carquinez Straits, approximately 500 acres of submerged land can be reclaimed for approximately \$6,000 per acre.

On the west side of Mare Island there is an area of several thousand acres of submerged tide lands, which could be walled in and filled by dredging at a reasonable cost, although the exact amount has not

been approximated.

The existing navy yard on Mare Island was established in 1854 and has been gradually developed since until the total investment of the Government in the yard, up to date, is approximately \$32,000,000. The cost of replacing or of constructing anew at this time such a plant as is now established at this yard, or its equivalent, is estimated at approximately \$15,000,000, and the salvage value of the plant at \$8,000,000.

However, the Navy General Board has reported to the Secretary

of the Navy in regard to this site as follows:

The Mare Island Navy Yard, happily situated in many respects, has continually labored under the disadvantage of a location on a shallow and muddy estuary reached by a dredged channel several miles long through Pinole Shoal, making access difficult. The proposed plan to erect a supplementary establishment at the lower end of Mare Island on a very restricted site does not remove the disadvantages due to Pinole Shoal, and it introduces a new disadvantage because the existing shops will then be 2 miles from the new development. But even should the shops at the upper end of the island in time be moved to the new site (which would almost surely follow) the resulting base would still be cramped and unsuitable.

The site for docks and sites for heavy machinery in proximity to them are limited. Future development is difficult. The muddy estuary and extensive San Pablo Bay

flats have always to be reckoned with.

The cost of the proposed layout is relatively low, because the facilities will have been increased by only two dry docks and additional piers. The General Board considers that this layout would not meet the need for an adequate base on the Pacific coast and that expansion would be difficult and costly.

In view of all of these considerations, the joint committee concludes, and so recommends, that the site offered by the city of Alameda be selected, with a view to the development thereon of a naval base.

The navy yard at Mare Island is an excellent navy yard, well equipped and efficient, and should be continued in its present activities as a navy yard for construction and repair purposes as differentiated from an operating docking and supply base; and the naval base to be established at Alameda should, for the present, be limited to an operating and supply base.